

FEDERAL TRADE COMMISSION TRADE REGULATION RULE
LABELING AND ADVERTISING OF HOME INSULATION: PROPOSED RULE
16 CFR PART 460

COMMENTS
OF THE
POLYISOCYANURATE INSULATION MANUFACTURERS ASSOCIATION
(PIMA)

September 18, 2003

**PIMA Comments on the FTC July 15, 2003 Proposed Rule
Labeling and Advertising of Home Insulation (16 CFR Part 460)**

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I. Introduction

On Tuesday, July 15, 2003, the Federal Trade Commission (“the Commission”) issued a proposed rule that would amend its trade regulation concerning the labeling and advertising of home insulation (“R-value Rule” or “Rule”). 68 FR 41872. The Commission solicited comments on the proposed amendments and additional issues. The Polyisocyanurate Insulation Manufacturers Association (“PIMA”) respectfully submits the following comments on the proposed amendments and on whether the Commission should propose additional amendments.

PIMA is a trade association whose primary purpose is to advance the use of polyisocyanurate insulation (“polyiso”) in North America. Polyiso is one of the most widely used, energy efficient and cost effective insulation products available. PIMA’s membership consists of manufacturers and suppliers of polyiso insulation which provide the predominant portion of polyiso to the United States and Canada for both the residential and commercial construction markets. Polyiso products supplied by PIMA members to the residential market are subject to the R-value Rule.

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II. PIMA's Comments on Specific Proposed Amendments to the Rule

Since the Advanced Notice of Proposed Rulemaking (ANPR) was issued on September 1, 1999, many changes have occurred in both R-value testing standards and product standards for insulation materials. The updated reference numbers for these standards are listed in Appendix A.

a. Part XII (§460.1 What This regulation does)

PIMA supports the Commission's proposal to increase the amount of the monetary penalty from \$10,000 to \$11,000.

b. Part XII. (§ 460.5 R-value Tests): Update reference for ASTM C 739 and replace ASTM C 236 and C 976 with ASTM C 1363-97

PIMA supports this change and recommends that all referenced standards should be reviewed and updated when the final Rule is published. (See Attachment A)

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- c. Part XII (§ 460.5(a) R-value Tests) – require R-value tests to be conducted with a mean temperature differential of 50 F plus or minus 10 F in addition to the current Rule requirement of testing at 75 F mean temperature.

PIMA supports this change for the reasons presented by the Commission in Part V.D.2.b. However, in § 460.5(b) and 460.5(c) R-value Tests, testing of aluminum foil insulations is allowed at a temperature differential of 30 F. PIMA submits that the Commission's desire for consistency of test conditions should apply to all types of home insulation, including aluminum foil insulation products. The need for consistency in R-value test conditions is important so PIMA questions the decision of the Commission to exempt aluminum foil insulations from this standardized condition.

- d. Part XII (§ 460.5(a)(1) Aging of Cellular Plastics)

PIMA supports the addition of the latest versions of product standards for all types of foam insulation: ASTM C 578-03 for extruded polystyrene; ASTM C 1029-02 for spray applied polyurethane and ASTM C 591-01 for unfaced polyurethane. PIMA also strongly supports the addition of ASTM C 1289-02 [Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board] for faced

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polyisocyanurate insulation products. This standard has been in place since 1995. The direction in the Rule to use HH-I-530A for these products is ineffectual since this standard became obsolete in 1985 with the introduction of HH-I-1972, which was withdrawn in 2001 in favor of ASTM C1289.

The Commission should not be concerned about the reference in C 1289-02 to CAN/ULC S770 or ASTM C1303 because (§ 460.5(a)(1) of the current and proposed Rule allows the use of “another reliable procedure.” 68 FR 41898. Both methods are consensus standards.

PIMA agrees with the Commission’s decision to not include C1303 as a required R-value test for unfaced foam insulation. Additional comments on this issue may be found in Part III of these comments, page 13.

PIMA urges the Commission, however, to recognize CAN/ULC S770 testing as an alternate method for all permeably faced and unfaced foam insulation. PIMA believes a specific reference to CAN/ULC S770 in the Rule would fulfill the Commission’s direction that any chosen test method “fully reflects the ageing on a product’s R-value”. This method provides a Long Term Thermal Resistance R-value (LTTR), i.e., a **15 year time weighted R-value**, which is a significant, technically supported improvement over the old 180 day conditioning procedure.

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CAN/ULC S770 is a consensus standard and reflects a refinement of the underlying “slicing and scaling” principles of ASTM C1303. In Canada, this method applies to all foam insulation products with blowing agents other than air, including polyiso, extruded polystyrene and polyurethane. CAN/ULC S770, is now used exclusively by PIMA members to describe the thermal performance of permeably faced polyiso insulation (some of which is sold as home insulation) and is included in ASTM C1289-02 Mandatory Annex.

At this time, CAN/ULC S770 does not apply to impermeably faced products, such as foil faced foam boardstock. A research program is now underway to evaluate extension of CAN/ULC S770 to impermeably faced foam insulation products. The applicability of CAN/ULC S770 for permeably faced products only should not deter the Commission from recognizing CAN/ULS S770 as an alternate method for permeably faced or unfaced foam insulation. Following the Rule format for Reflective insulation which allows single sheet and multiple sheet aluminum foils, § 460.5(a).1. of the Rule may be divided into two subcategories: permeably faced foam insulation and impermeably faced foam insulation.

The inclusion of CAN/ULC S770 as an alternate method for permeably faced foam insulation boardstock would represent a cost effective alternative to current R-value tests now required in the Rule since test data used for building code compliance in Canada, where CAN/ULC S770 is mandatory, would be useful in the United States.

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PIMA offers an expanded discussion on this topic in a later section of this document (see Part III of these comments on page 13) in response to the Commission's request for additional comments on certain topics.

- e. Part XII (§ 460.5(a)(3) R-value Tests): Loose-Fill Settling – see Part V.C.2 for discussion

PIMA supports the proposed change.

- f. Part XII (§ 460.5(a)(4) R-value Tests): Spray-Applied Cellulose Insulation – see Part V.C.2

PIMA supports the proposed change.

- g. Part XII (§ 460.5(a)(5) R-value Tests): Loose-Fill Installed Thickness – see Part V.E.1.c.ii. for discussion

PIMA supports the proposed change.

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- h. Part XII (§ 460.5(a)(5) R-value Tests): Loose-Fill Installed Thickness – see Part V.E.1.c.ii. for discussion

PIMA supports the proposed change

- i. Part XII (§ 460.5(b) R-value Tests): Single Sheet Aluminum Foil shall use ASTM C 1371 – 98 See Part V.D.5.a for discussion of Commission’s position

PIMA supports the addition of ASTM C 1371-98 as an alternate method for the measurement of emissivity of single sheet aluminum foil.

- j. Part XII (§ 460.5(c) R-value Tests): Multiple Sheet Aluminum Foil Replacement of ASTM C 236 and C 976 with ASTM C 1363 See Part V.D.5.a for discussion

PIMA supports this change.

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- k. Part XII (§ 460.5(d) R-value Tests): Insulation Material with Foil Facings and Air Space – Replacement of ASTM C 236 and C 976 with ASTM C 1363. See Part V.D.5.a for discussion

PIMA supports this change.

- l. Part XII (§ 460.5(e) R-value Tests): Incorporation by Reference See Part V.E. for discussion

PIMA supports this addition to the Rule but recommends the Commission update all reference standards to the latest version. PIMA has provided this information in Attachment A.

- m. Part XII (§ 460.8): R-value Tolerances) See Part V.D.3. for discussion of Commission's position)

PIMA supports the Commission's proposal to apply the 10% tolerance limit solely to claims by home insulation manufacturers.

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PIMA does not support the modification proposed by the Commission to require the mean R-value of sampled specimens of a production lot of insulation meet or exceed the R-value shown in a label. The term, “production lot” is not well defined and the Commission has failed to designate sampling procedures. Furthermore, the precision and bias of commonly used R-value test methods, such as ASTM C 518, are in the $\pm 3\text{-}5\%$ range.

The current language in the Rule, “the R-value of any insulation you sell cannot be more than 10% below the R-value shown in a label, fact sheet, ad, or other promotional material for that insulation” has been in place since the Rule’s introduction and is well understood.

- n. Part XII (§ 460.12): Labels): Batts and Blankets See Part V.E.1.b. for discussion

PIMA agrees with the proposed change to apply the R-value requirements to all types of batt and blanket home insulation.

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- o. Part XII (§ 460.12): Labels): Loose-Fill Labels See Part V.E.1.c. for discussion

PIMA supports the proposed change to apply the same disclosures for all types of loose-fill insulation.

- p. Part XII (§ 460.13): Fact Sheets): Urea-based Foam Insulation See Part V.E.1.d. for discussion

PIMA supports the elimination of urea-based (PIMA suggests the term “urea-formaldehyde” is more descriptive of this product) foam insulation from the Rule because the product is no longer available in the marketplace. However, the Commission should ensure that procedures are in place to reinstate this product category under the Rule should the product reappear.

- q. Part XII (§ 460.14): How Retailers must handle Fact Sheets): See Part V.E.4. for discussion

PIMA supports the proposed change as long as the burden for determining sufficiency of the required information rests with the retailer.

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- r. Part XII (§ 460.18): Insulation Ads): Eliminate disclosure requirements for radio ads See Part V.E.2.b. for discussion

Although supporting the exemption of disclosure statements for radio ads, PIMA believes most homeowners are unaware of the FTC Rule as it pertains to home insulation. The FTC should consider preparation of a public service announcement or make an informational booklet available that educate consumers of the existence of the Rule and what information they should demand when purchasing home insulation.

- s. Part XII (§ 460.19): Savings Claim): Eliminate reference to formaldehyde foam (See Part V.E.1.d. for discussion of Commission's position)

PIMA supports the elimination of urea-formaldehyde foam insulation from the Rule because the product is no longer available in the marketplace. However, the Commission should ensure that procedures are in place to reinstate this product category under the Rule should the product reappear.

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III. PIMA Comments on Commission’s Additional Questions

a. Aging of Cellular Plastic Insulation

In order to better organize comments on this complex topic, PIMA has chosen to address all Commission’s questions and request for comments in this section.

i. Part V.C.1.a. Disclosing R-values that Account for Factors Affecting R-value, Aging, Cellular Plastics

The Commission has clearly stated that it does not intend to require ASTM C1303 for cellular plastic insulation. However, at 68 FR 41881, “Nevertheless, the Commission is interested in seeking comments on this evolving issue and may reconsider its views if warranted by the comments. The Commission seeks comment on whether the new standards (ASTM C 1303 and Canadian S 770) are sufficiently developed to be imposed on all industry members as a legal requirement in the R-value Rule. In particular, the Commission requests more information regarding the scope of applicability of C 1303 (e.g., for faced and unfaced boards) and likely changes to the procedures in the future.

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There have been significant changes in thermal testing of cellular plastic foam insulation with blowing agents other than air since the issuance of the ANPR in September 1999. At that time, the Commission sought comments on the inclusion of ASTM C1303-95 as a means of evaluating the long term thermal performance of unfaced, homogeneous foam insulation.

At that time, PIMA stated that the use of ASTM C1303 was not appropriate for faced foam insulation or as seen in the scope of ASTM C 1303, “No procedures are detailed in this test method to address the effects of permeable or impermeable facings or skins, manufactured thickness, orientation, manufacturing process, density, quality, the influence of structures or containments, or the end-use environmental conditions on internal cell gas composition.”

Today, nearly four years later, there is no wide spread use of ASTM C 1303 for foam insulation products. This is largely due to the narrow range of products to which this standard would apply, in addition to the complexity and cost of running the test method. Its use, if any, has been limited to the area of formulation development.

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PIMA strongly supports the recognition of CAN/ULC S770 as an accepted test method for measuring the Long Term Thermal Resistance (LTTR) R-value of permeably faced or non-homogeneous cellular plastic insulation. This method is based on the thin slicing concept underlying ASTM C1303, but has been improved with respect to standardizing test parameters such as slice thickness and aging period, so that 15 year time weighted average R-values may be reported. For a more complete discussion of this method see Attachment B.

Recognition of CAN/ULC S770 as an alternate test method for permeably faced foam insulation boardstock would represent a cost effective alternative to current R-value tests now required in the Rule since test data used for building code compliance in Canada would also be useful in the United States.

At this time, CAN/ULC S770 does not apply to impermeably faced products, such as foil faced foam boardstock. A research program is now underway to evaluate extension of CAN/ULC S770 to these types of products. However, this fact should not deter the Commission from recognizing CAN/ULS S770 as an alternate method for permeably faced or

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unfaced foam insulation. Following the Rule format for Reflective insulation which divides this category into single sheet and multiple sheet aluminum foil products, Section 460.5(a).1. may be divided into two subcategories: permeably faced foam insulation and impermeably faced foam insulation.

“ In addition, the Commission also requests comment on whether the differences in results achieved by C 1303 as compared to the current procedure (180-day test) are significant at smaller board thicknesses and whether such thicknesses are prevalent in the residential insulation market.”

With respect to results obtained on a variety of thicknesses of permeably faced polyiso using the CAN/ULC S770 test method as compared to the 180 day conditioning period, there is minimal difference in the values for permeably faced polyiso at up to 1” thicknesses, but differences are apparent in thicker products. This is due to the fact that the R-value vs thickness curve for polyiso is not linear.

The Commission also would appreciate information about the expected impact that the use of this procedure would have on consumer buying decisions.

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PIMA firmly believes the consumer will be better informed with a test method that reflected a 15 year value than one based on a 6 month conditioning procedure.

b. Part XI (1)

- i. Should the Commission amend section 460.5(a)(1) of the Rule to require the use of ASTM C 1303–95 for homogeneous, unfaced, rigid closed cell polyurethane, polyisocyanurate, and extruded polystyrene insulations? What market share do unfaced products hold relative to other rigid cellular insulations (such as faced products)?

PIMA does not support the addition of ASTM C1303 to the Rule because this test method does not apply to the vast majority of insulation products used in the market today. For instance, polyiso products always have facings, either permeable (organic or glass facers) or impermeable (aluminum foil facers or facers with gas barriers). Spray polyurethane products are installed with coatings and extruded polystyrene, although available without facers, is not homogeneous due to increased density layers, or skins, at the surface.

As stated above, PIMA strongly supports the addition of CAN/ULC S770 as an alternate method for permeably faced foam insulations.

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- ii. Does C 1303 adequately account for variations in the thickness of the insulations covered?

Yes.

- iii. What would be the cost of applying ASTM C 1303 as proposed by the Commission?

PIMA does not support the addition of ASTM C1303 to the Rule for technical, as well as for economic reasons. ASTM C1303 testing is at least twice as costly to run as CAN/ULC S770.

- c. Part XI (2) Should the Commission require the use of ASTM C 1149 for determining the settled density of self-supported, spray applied cellulose insulation?

PIMA has no position on this issue.

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- d. Part XI (3) Should the Commission amend sections 460.12(a)(2) and (3) to require the same overage charts for all types of loose-fill insulation at R-values of 11, 13, 19, 22, 24, 32, and 40? Are there any additional, significant compliance costs associated with the proposed change?

PIMA has no position on this issue.

- e. Part XI (4) Should the Commission amend the testing and labeling provisions of the Rule to require the use of ASTM C-1374 for determining the initial installed thickness of loose-fill insulation (see section V.E.1.c.ii. for additional questions on this subject)?

PIMA has no position on this issue.

- f. Part XI (5) Are there additional changes to the Rule that have not been addressed that would help to ensure that installers apply the proper amount of insulation, particularly loose-fill?

PIMA has no position on this issue.

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g. Part XI (6) General Questions: To maximize the benefits and minimize the costs for consumers and sellers (including specifically small businesses), the Commission seeks views and data on the following general questions for all the proposed changes described in this document:

(a) What benefits would the proposed requirements confer, and on whom?

PIMA believes the consumer benefits when regulations are easily understood and are uniform, to the extent possible.

(b) What paperwork burdens would the proposed requirements impose, and on whom?

PIMA does not believe that there are additional paperwork burdens associated with these proposed changes.

(c) What other costs or burdens would the proposed requirements impose, and on whom?

PIMA does not believe there are any other costs or burdens associated with the proposed changes.

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(d) What regulatory alternatives to the proposed requirements are available that would reduce the burdens of the proposed requirements, while providing the same benefits?

PIMA believes that the Rule's recognition of a third party certification program for R-value should be acceptable to demonstrate compliance with the R-value Rule.

(e) What impact, either positive or negative, would the proposed requirements likely have on the environment?

Home insulation delivers a positive impact on the environment in the area of reductions in the use of fossil fuels to heat and cool buildings. The R-value Rule provides a means to ensure the proper amount of insulation is installed and also educates the consumer on points to look for when selecting insulation for residential use.

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IV. Additional Recommendations for Modifying the R-value Rule

PIMA provides these suggestions to the Commission for consideration for inclusion in the Rule. Competition always drives innovation and the home insulation market is no exception. PIMA urges the FTC to survey the home insulation industry to determine if new insulation materials are being used. We also recommend that the FTC issue a letter notifying manufacturers about the Rule when it becomes final to ensure that accurate and consistent information about the Rule and its implementation reaches the marketplace.

a. Address other specific types of home insulation

i. Polyicynene

There are a number of systems houses that offer a low density spray foam for home insulation, typically installed on the underside of roof decks. Since the main reaction in these products is between isocyanate and water, they could be called polyicynene foams. One of these is a Canadian company, Icynene, which is marketing and selling its product in the United States. As stated on the Icynene website (www.icynene.com), “The Icynene Insulation System[®] is a state-of-the-art, soft foam insulation that is sprayed into walls, floors and ceilings by Icynene Licensed Dealers. Sprayed on as a liquid, it expands in seconds to create a superior insulation and air barrier.” The

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product is an open cell foam that would not be subject to aging, yet is being sold as a home insulation product.

PIMA makes no judgment on the quality of the product, or its use as home insulation. However, we urge the Commission to specifically designate this product, generically as polyisocyanurate in the Rule in order to remove any doubt that this product is subject to FTC regulations.

ii. Thermo-ply

This product is composed of a core of water- and weather-resistant cellulose plies often faced with an aluminum facing. While the product does claim an R-value of 0.2, (See the Thermo-ply Energy Brace website <http://www.simplex-products.com/pdf/EBtech.pdf>), PIMA recommends that this product should be specifically referenced in the reflective insulation section of the R-value Rule.

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List of Attachments

A. Updated List of Reference Standards

B. “Polyiso Insulation and Long-Term Thermal Resistance Values”,

Lorraine Ross, *The Construction Specifier*, July 2003

ATTACHMENT A

Updated List of Reference Standards

This Attachment provides an updated list of reference standards that are now shown in Part XII Proposed Rule Language; Part 460.5 R-value Tests (e) (1). 68 FR 41899.

Current Standards Listing in Proposed Rule	PIMA Suggested Standards Update
(i) ASTM C 177-97 (Reapproved 1993), ``Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.'`	Correct citation.
(ii) ASTM C 236-89 (Reapproved 1993), ``Standard Test Method for Steady-State Thermal Performance of Building Assemblies by Means of a Guarded Hot Box.'`	Delete ASTM C236 since it has been incorporated into ASTM 1363
(iii) ASTM C 518-95, ``Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus."	Update to ASTM C 518-02
(iv) ASTM C 578-95, ``Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation."	Update to ASTM C578-03
(v) ASTM C 591-94, ``Standard Specification for Unfaced Preformed Rigid Cellular Polyisocyanurate Thermal Insulation."	Update to ASTM C 591-01
(vi) ASTM C 739-97, ``Standard Specification for Cellulosic Fiber (Wood-Base) Loose-Fill Thermal Insulation."	Update to ASTM C739-00E1
(vii) ASTM C 1029-96, ``Standard Specification for Spray-Applied Rigid Cellular Polyurethane Thermal Insulation."	Update to ASTM C 1029-02
(viii) ASTM C 1045-97, ``Standard Practice for Calculating Thermal Transmission Properties from Steady-State Heat Flux Measurements."	Update to ASTM C1045-01

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Updated List of Reference Standards

(ix) ASTM C 1114-98, ``Standard Test Method for Thermal Transmission Properties by Means of the Thin-Heater Steady-State Apparatus."	Update to ASTM C 1114-02a
(x) ASTM C 1149-97, ``Standard Specification for Self-Supported Spray Applied Cellulosic Thermal Insulation."	Update to ASTM C1149-02
(xi) ASTM C 1224-99, ``Standard Specification for Reflective Insulation for Building Applications."	Update to ASTM C1224-01
	Insert ASTM C 1289-02 C1289-02 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board
(xii) ASTM C 1363-97, ``Standard Test Method for the Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus."	No suggested change.
(xiii) ASTM C 1371-98, ``Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emisometers."	No suggested change.
(xiv) ASTM C 1374-97, ``Determination of Installed Thickness of Pneumatically Applied Loose-Fill Building Insulation."	Update to ASTM C 1374-03
(xv) ASTM E 408-71 (Reapproved 1996), ``Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques."	Update to ASTM E 408-71 (2002)